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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,396	10/14/2003	Keiichiro Ishihara	1232-5177	6840
27123	7590	11/19/2007	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			BECKLEY, JONATHAN R	
			ART UNIT	PAPER NUMBER
			4178	
			NOTIFICATION DATE	DELIVERY MODE
			11/19/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/686,396	<b>Applicant(s)</b> ISHIHARA, KEIICHIRO	
	<b>Examiner</b> Jonathan R. Beckley	<b>Art Unit</b> 4178	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,7,9,10,33,35 and 67 is/are pending in the application.
- 4a) Of the above claim(s) 2-6,11-16,26,32 and 36-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,7,9,10,33,35 and 67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Interview Summary*

1. Date of Interview: **November 5, 2007.**

The following are all participants within the telephonic interview:

**Jonathan R. Beckley      Scott Beliveau      Sungho Hong.**

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: **Clarification was needed on the exact claims being elected in the applicants response to election requirement. Applicant confirmed that only Claims 1, 7, 9, 10, 33, 35, and 67 are elected and the remaining claims after the amendment are to be held as withdrawn from consideration of the invention.**

### Response to Argument

2. Applicant's election with traverse of **Application 10/686,936** in the reply filed on October 14, 2003 is acknowledged.

The traversal is on the ground(s) that (1) all of the claims are properly presented in the same application; (2) undue diverse searching should not be required; and (3) all claims should be examined together. This is not found persuasive because the reply by the applicant did not distinctly and specifically point out the supposed errors in the examiner's action and the applicant failed to specifically point out the reasons on which he or she bases his or her conclusions that a requirement to restrict is in error. The mere broad allegation that the requirement is in error does not comply with the

requirement of 37 CFR § 1.111. Thus the required provisional election becomes an election without traverse.

The applicant submits that all of the claims are properly presented in the same application. Where there is a relationship disclosed between species, the applicant fails to explain disclosed relation and fails to give reasons leading to the conclusion that the disclosed relation does prevent restriction. Undue diverse searching would be required in dealing with the multiple embodiments of the disclosed invention.

The requirement is still deemed proper and is therefore the restriction is proper and maintained.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 7, 9-10, 33 and 67** are rejected under **35 U.S.C. 102(b)** as being unpatentable by **Minakuchi et al. (US Patent 6,064,504)**.

5. Regarding **Claim 1**, Minakuchi teaches a two-dimensional scanning apparatus (**Column 1, lines 45-46**) comprising: deflector for two-dimensionally deflecting a light beam from a light source (**Column 1, lines 47-48**); and an optical system for directing the light beam deflected by said deflector on a surface to be scanned (**Column 1, lines**

**48-49**), said scanning optical system including an optical element which has no reflecting surface having optical power, and is tilted and/or shifted (**Column 1, lines 53-60**).

Regarding **Claim 7**, Minakuchi further discloses a control unit for displaying an image on the surface to be scanned, by controlling said deflector (**Column 2, lines 7-18**).

Regarding **Claim 9**, Minakuchi teaches a two-dimensional scanning apparatus (**Column 1, lines 45-46**) comprising: a deflector for two-dimensionally deflecting a light beam from a light source (**Column 1, lines 47-48**); and a scanning optical system for directing the light beam deflected by said deflector to a surface to be scanned (**Column 1, lines 48-49**), said scanning optical system including an optical surface which is tilted at an angle larger than a maximum angle of view relative to a central axis of a two-dimensional deflection range of the light beam deflected by said deflector (**Figure 6; Column 7, lines 11-30**).

Regarding **Claim 10**, Minakuchi teaches a two-dimensional scanning apparatus (**Column 1, lines 45-46**) comprising: a deflector for two-dimensionally deflecting a light beam from a light source (**Column 1, lines 47-48**); and a scanning optical system for directing the light beam deflected by said deflector to a surface to be scanned (**Column 1, lines 48-49**), said scanning optical system including an optical surface which is tilted

relative to a central axis of a two-dimensional deflection range of the light beam deflected by said deflector (**Column 1, lines 13-18**), and the surface to be scanned being tilted in the same direction as said tilt optical surface (**Column 7, lines 1-5**).

Regarding **Claim 33**, Minakuchi further discloses a control unit for displaying an image on the surface to be scanned by controlling said deflector (**Column 2, lines 7-18**).

Regarding **Claim 67**, Minakuchi further discloses a control unit for displaying an image on the surface to be scanned, by controlling said deflector (**Column 2, lines 7-18**).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Minakuchi et al. (US Patent 6,064,504)**.

8. Regarding **Claim 35**, Minakuchi does disclose a light source for supplying light beams and wherein a image is formed on the surface to be scanned by causing the light

beams to be incident on said deflector sequentially and/or simultaneously (**Column 1, lines 47-48 and Column 2, lines 7-18**).

However, Minakuchi does not disclose the light beams being colour light beams.

Official notice is taken that it is well known in the art that color light beams, i.e., RGB, are known to use for projecting a color image.

Therefore, at the time of invention, it would have been well known to a person of ordinary skill in the art to use color light beams directed from a light source as light beams to form the image due to the deflector on the surface.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan R. Beckley whose telephone number is 571-270-3432. The examiner can normally be reached on Mon-Fri: 7:30-5:00 EST (Alternate Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on 571-272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. R. B. /  
/Jonathan R Beckley/  
Examiner, Art Unit 4178\

11/5/2007

/Hai Tran/  
Supervisory Patent Examiner, Art Unit 2623